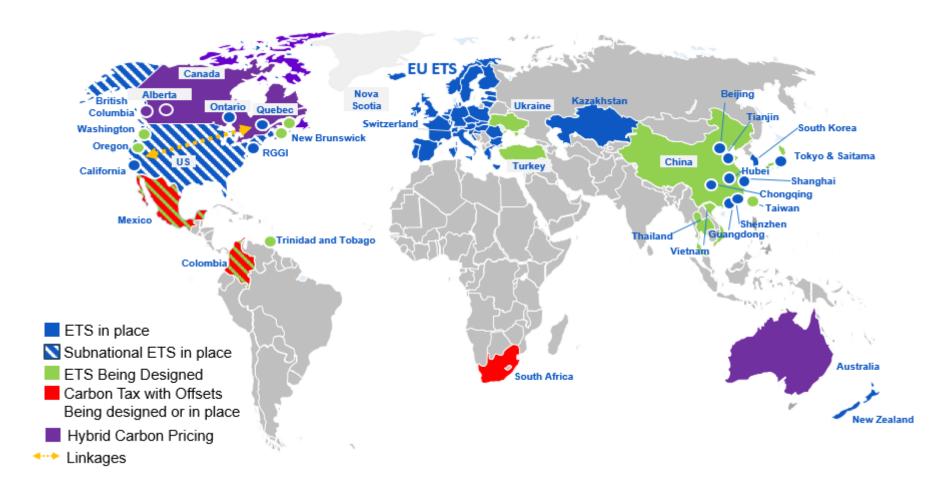
Clean Energy Jobs Work Group on Regulated Entities

Energy-Intensive, Trade- Exposed Industry Issues



Bulk of World Economy Subject to Price on Carbon



Source: <u>IETA</u>



Protection Appropriate To Prevent Leakage

Three facets to carbon leakage:

- (1) Highly competitive, price sensitive markets: Industries that are not able to pass increased carbon costs on to consumers without loss of significant market share.
- (2) High Emission Intensity Factor: Carbon cost make up a material percentage of overall costs
- (3) Asymmetric carbon pricing: Competing with entities in jurisdictions with lower carbon costs.

Example Industries: Non-utility gas-fired electricity generation; Cement manufacturing, Pulp and paper.



EITE Can Be Mathematically Determined

Factor

Emission Intensity Indicator

Trade Intensity Indicator

Examples

Carbon Intensity =
$$\frac{\text{Tonnes CO2e}}{\text{Value Added}}$$

Carbon Intensity =
$$\frac{\text{Tonnes CO2e}}{\text{Revenues}}$$

$$Trade Intensity = \frac{Imports + Exports}{Shipments + Imports}$$

Trade Intensity =
$$\frac{Imports + Exports}{Sales + Imports}$$



Cost Containment Can Be Tiered Approach

Leakage Risk	Emissions Intensity	Trade Exposure
High	High	High, Medium, Low
	Medium	High
Medium	Medium	Medium, Low
	Low	High, Medium
Low	Low	Low
	Very Low	High, Medium, Low



Additional EITE Considerations

No double charge for same ton of carbon

- Harmonize Carbon price obligation with other states
- Recognize early action

Equality of treatment among competitors within Oregon

 IPPs should have same carbon cost structure as utilities for gas fired generation

Regulatory certainty

Set a policy and stick with it

Robust Offset Policy

 Offsets are lowest cost mechanism to meet compliance obligations and should be encouraged to maximum extent possible



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Questions/comments?

